

**INPLACE MOISTURE-DENSITY DETERMINATION:  
SAND CONE METHOD  
Mass Density Control**

Location \_\_\_\_\_ Site No. \_\_\_\_\_

Watershed \_\_\_\_\_ Subwatershed \_\_\_\_\_

Contract No. \_\_\_\_\_ Contractor \_\_\_\_\_

Tested by \_\_\_\_\_ Computed by \_\_\_\_\_ Checked by \_\_\_\_\_

Test No.	Date	Location of test			Borrow source, location, and depth	Material classification
		Station	☐ offset	Elevation		

Size of sand cone \_\_\_\_\_

Test No.	Date	Specification requirements		Test results	
		Moisture range (%)	Mass dry density (lb/ft³)	Moisture (%)	Mass dry density (lb/ft³)

Remarks \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Volume Determination	Test No.			
1. Bulk density of sand (predetermined) _____				
2. Initial weight of sand, cone, and container _____				
3. Final weight of sand, cone, and container _____				
4. Weight of sand in hole, plate, and cone = (2) - (3) _____				
5. Weight of sand in plate plus cone (predetermined) _____				
6. Weight of sand in hole = (4) - (5) _____				
7. Volume of hole = (6) ÷ (7) _____				

  

Moisture Determination	Container No.			
<b>Sample tested using:</b> quick dry <input type="checkbox"/> oven <input type="checkbox"/>				
8. Weight of moist sample and container _____				
9. Weight of dry sample and container _____				
10. Weight of moisture = (8) - (9) _____				
11. Weight of container _____				
12. Weight of dry sample = (9) - (11) _____				
13. Moisture content = ((10) ÷ (12)) 100 _____ (%)				
14. Correction for ignition _____ (%)				
15. Corrected moisture content = (13) - (14) _____ (%)				

  

Density Determination				
16. Total wet weight _____				
17. Total dry weight = [(16) ÷ (100 + (15))] 100 _____				
18. Mass dry density = (17) ÷ (7) _____				

Indicate Weight and Volume Units Used in Test